

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for the continuous gravimetric metering of flowing materials for burner systems, with the instantaneous mass flow being determined and the metering occurring with a metering device, characterized in thatwherein

the type of each flowing material is determined, the known individual calorific value from the type of each flowing material is determined and the instantaneous calorific value of the flowing materials is determined from the determination of the mass flow and the output from the metering device (8, 108) is regulated in adjustment to the set-point conveying rate depending on the instantaneous calorific value.

2. (Currently amended) A method according to claim 1, characterized in thatwherein the determination of type of flowing material is carried out by way of NIR spectroscopy.

3. (Currently amended) A method according to claim 1—or—2, characterized in thatwherein the flowing materials are plastic materials, especially plastic from recycling.

4. (Currently amended) A method according to one of the preceding claims claim 1, characterized in thatwherein the output of the metering device (8, 108) is regulated by taking into account the distance between metering device (8, 108) and burner system (40).

5. (Currently amended) A method according to one of the preceding claims claim 1, characterized in thatwherein the output of the metering device (8, 108) is controlled or regulated by changing the speed of the metering device (8, 108).

6. (Currently amended) A method according to one of the preceding claims claim 1, characterized in thatwherein the output of the metering device (8) is regulated in the case of pneumatic conveyance by changing the air quantity and/or air speed.

7. (Currently amended) An apparatus for the continuous gravimetric metering of flowing materials for burner systems, with the instantaneous mass flow being determined and with the flowing materials being metered by means of a metering device (8, 108), characterized in thatwherein

there are provided a material recognition system (20, 120) for determining any kind of flowing material, a computer unit (30, 130) for determining the instantaneous calorific value of the flowing materials, and a metering control unit (10, 110) with which

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the output of the metering device (8, 108) is adjusted to the set-point conveying rate depending on the instantaneous calorific value.

8. (Currently amended) An apparatus according to claim 7, ~~characterized in that~~wherein the material recognition system (20, 120) comprises a contactless material sensor (22), ~~especially a microwave sensor, an X-ray sensor or NIR spectroscopic sensor,~~ and a radiation source (23, 24) with which the flowing material can be irradiated with a radiation to which the material sensor is sensitive.

9. (Currently amended) An apparatus according to claim 8, ~~characterized in that~~wherein the material sensor (22) is an NIR spectroscopic sensor and the radiation source (23, 24) emits light in the near-infrared range, especially that the radiation source is a halogen lamp.

10. (Currently amended) An apparatus according to ~~one of the claims 7 to 9~~claim 7, ~~characterized in that~~wherein the material recognition system (20) is arranged directly before the metering device (8, 108).

11. (Currently amended) An apparatus according to ~~one of the claims 7 to 9~~claim 7, ~~characterized in that~~wherein the material recognition system (120) is arranged in a flow meter (104).

12. (Currently amended) An apparatus according to claim 11, ~~characterized in that~~wherein the flow meter (104) is arranged on a band weigher or a Coriolis flow meter or is configured as a rotary metering weigher (8).

13. (Currently amended) An apparatus according to ~~one of the claims 7 to 12~~claim 7, ~~characterized in that~~wherein the flowing materials are plastic materials, especially plastic from recycling.

14. (Currently amended) An apparatus according to ~~one of the claims 7 to 13~~claim 7, ~~characterized in that~~wherein the burner system (40, 140) is a rotary kiln for cement production.

15. (Currently amended) An apparatus according to ~~one of the claims 11 or 12~~claim 7, ~~characterized in that~~wherein the metering device (8) and the flow meter (104) form a unit, especially a rotary metering weigher.